





WATERSHED PLANS

Don't Reinvent the Wheel



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Traditional Tribal Knowledge

- Space and place
- Relationship of people to their place
- Interrelationships



National Environmental Policy Act of 1969

The purposes of this chapter are:

- To declare a national policy which will encourage productive and enjoyable **harmony between man and his environment**;
- To promote efforts which will **prevent or eliminate damage to the environment** and biosphere and stimulate the health and welfare of man;
- To **enrich the understanding of the ecological systems** and natural resources important to the Nation and
- To establish a Council on Environmental Quality

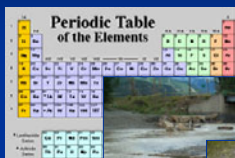


Clean Water Act (CWA) (Federal Water Pollution Control Act)

The objective of this Act is to
restore and maintain the
chemical,
physical, and
biological integrity
of the Nation's waters



Chemical, Physical and Biological Integrity



Periodic Table
of the Elements

Nutrients, sediment, pH, DO



Habitat, Flow



Fish,
Invertebrates,
Algae, &
Bacteria



To protect public health
and *the environment*



Why Is Water Quality Important?

■ Critical & vital resource

- Drinking water
- Recreational resource
- Cultural resource
- Wildlife habitat
- Public health concerns



CWA

100s – Policy, programs and special projects

- 104(b)3 make grants to agencies, institutions or other organizations
- 106 appropriations for States and Tribes



CWA

- 200s – Construction grants for water treatment
 - 201 authorization to make grants to Tribes
 - 208 water planning community process to control



CWA

- 300s – Standards and Enforcement
 - 301 effluent limits
 - 303 water quality standards
 - (d) nonattainment, TMDLs
 - 305(b) Report to Congress (fishable – swimable)
 - 319 Nonpoint Source Management Programs



CWA

- 400s – Permits and Licenses
 - 401 certification that WQS will be met
 - 402 NPDES permits
 - 404 permits for dredged or fill material (Army Corps of Eng)



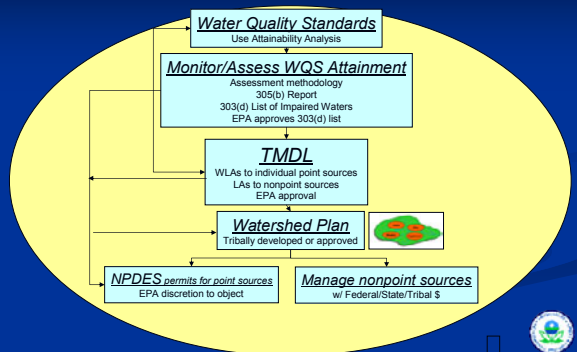
CWA

■ 500s – General provisions

- 505 citizen suits
- 518 Indian Tribes



CWA Watershed Framework *Continuing Planning Process (CPP)*



Integrate all water programs

CWA 106 Program

Monitoring Strategy	Long term (5-10 yrs)
WQ Standards Development	
Annual Work Plan	Short term (1 yr)


CWA 319 Program

NPS Management Program Plan	Mid term (3-5 yrs)
NPS Base Grant Work Plan	Short term (1 yr)
NPS Competitive Grant Work Plan	Short term (1-3 yrs)




EPA's Strategic Plan Clean and Safe Water

- Restore and maintain America's wetlands and watersheds and their associated ecosystems to protect public health, support economic and recreational activities and provide healthy habitat for fish, the environment
 - Water safe to drink
 - Fish safe to eat
 - Water safe for swimming
- Improve water monitoring networks



Measure N


- Show an improvement in water quality from baseline in at least one parameter in _____ stations.



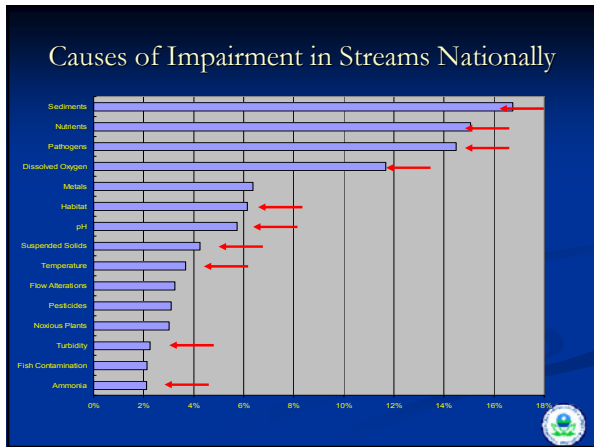
Establish Baseline Monitoring Program

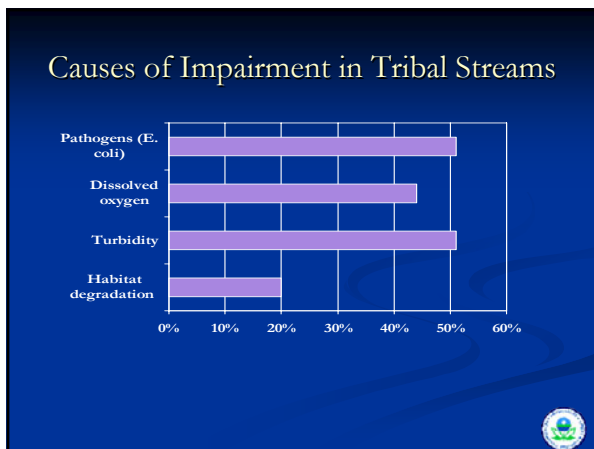
- Select water quality indicators and reporting parameters to be monitored

<u>Fundamental</u> Dissolved Oxygen pH Temperature Turbidity	<u>Intermediate</u> Total Phosphorus Total Nitrogen	<u>Mature</u> Macroinvertebrates <i>E. coli</i> or enterococci Basic Habitat Information
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Opportunities

- Demonstrate results achieved
 - Articulate priorities and expectations
 - Associate funding with results—budget climate
 - Measure progress and results—PART, Congressional oversight
 - Only 19 % of nation's water bodies are addressed, per 305(b) reports
- Implement guidance designed for Tribes
 - State model not appropriate for all Tribes
- Establish consistent national program guidelines and reporting



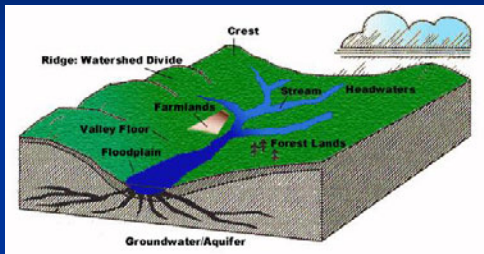
Opportunities (continued)

- Justify and compete for resources
 - \$3M in early 1990s to \$24M in FY05 (national)
- Create smoother path for other Tribes
 - New grantees eligible every year
 - 7 new Tribes eligible in 2005
 - Since FY2000, eligible Tribes has increased by 62%
 - eligible Tribes:
 - 229 nationwide
 - 27 Tribes in Region 8



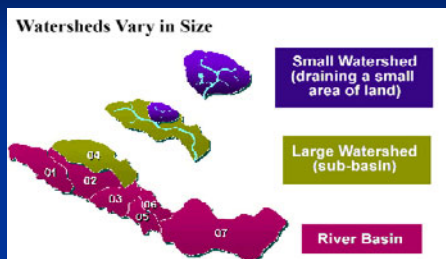
Watershed Plan

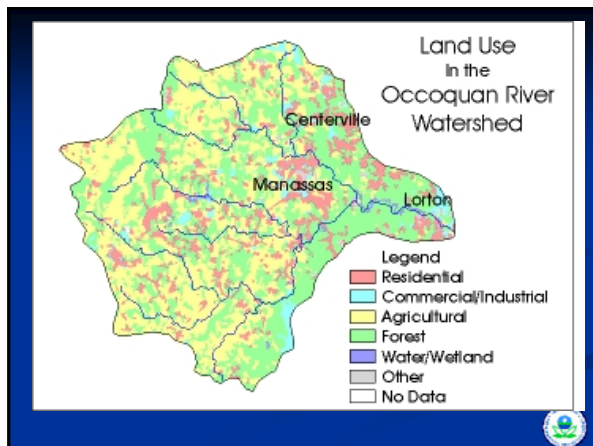






Watersheds





Watershed Planning Steps

1. Build partnerships
2. Characterize the watershed
3. Finalize goals and identify actions
4. Design an implementation program
5. Implement watershed plan
6. Measure progress and make adjustments

Other Plans to Use - integrate

Waste water	Area wide Waste Management Plan
Wetlands	Wetlands Protection Plan
Drinking Water	Source Water Protection Plan
Ground Water	Ground Water Protection Plan
Brownfields	Targeted site assessments
Underground Injection Control	UICs – septic tanks

- Conservation Plan (NRCS)
- Grazing Management Plan
- Woodland Conservation Plan
- Wildlife Habitat Plan
- Comprehensive Nutrient Management Plan

USDA - Natural Resources Conservation Service

■ Program Highlights

- \$ Wildlife Habitat Incentives Program (WHIP)
- \$ Wetlands Reserve Program (WRP)
- \$ Environmental Quality Incentives Program (EQIP)
- Plant Materials Center
- Resource Conservation and Development (RC&D)



Electronic Copies of Water Quality Data

- Monitoring data, submitted electronically, for each assessed surface water body

■ Data and Metadata

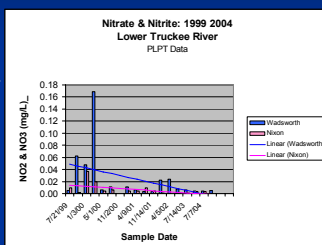
- Water body name
- Latitude/longitude location of sites
- Name of the watershed
- Parameters monitored and results
- Etc.

Monitoring Parameters	
Fundamental	Dissolved Oxygen
	pH
	Temperature
Intermediate	Turbidity
	Total Phosphorus
	Total Nitrogen
Mature	Macroinvertebrates
	E. Coli or enterococci
	Basic habitat information



Pyramid Lake Paiute Indian Reservation WQ Monitoring Program

- Developed Watershed Management Plan for NPS pollution control
- Designed implementation of management measures (fencing and alternate water sources) to prevent uncontrolled cattle grazing
 - turbidity from soil erosion
 - nutrient loads
 - loss of native vegetation
 - destabilized streambanks
- Monitored to assess and track the impacts of on-the-ground NPS projects on water quality



Santa Rosa Ranchera Plan SKY – EARTH - WATER

- Air quality
- Soil quality (toxic salt levels)
- Surface/Groundwater quality and quantity protection
- Soil contamination by toxic substances
- Drinking water quality
- Dog immunization/licencing programs
- Culturally significant plants

■ <http://www.tachi-yokut.com/EPA/theplan.html>

